

Solid Waste Management



Solid Waste Management

MISSION

The Office of Solid Waste Management (OSWM) maintains a viable County Solid Waste Management System that meets or exceeds State code requirements and implements the Board of Supervisors' policies for safe and efficient solid waste management in Loudoun County.

DESCRIPTION

The Office of Solid Waste Management coordinates the County's role in a solid waste management system that includes both public and private entities. Guided by public demand for health and safety, the system is responsive to a variety of local, State and Federal laws, regulations and policies. The Office of Solid Waste Management conducts three major programs: Environmental Assurance and Strategic Planning, Recycling/Diversion Operations, and Disposal Operations.

BUDGET OVERVIEW

FY 07 Issues, Challenges & Trends:

Solid waste management issues may be understood most clearly in the context of local, State and regional market forces:

- Locally, the growth in population now means one ton of municipal solid waste (MSW) is generated per year for every person in Loudoun County (278,000 tons projected in FY 07).
- The County must ensure that there are disposal and recycling options for waste generated within the County. Currently, the County facility receives 25 – 30% of the County's MSW for disposal. The remainder is sent out of the County through a private transfer station or to the Fairfax County waste-to-energy plant.
- Regionally, there is increasing competition for construction and demolition debris (CDD) disposal space due to decreasing capacity in Northern Virginia. Housing and commercial development will continue to create high demand for this space. Much of the municipal solid waste (MSW) capacity in the State is being consumed by these materials.
- Higher transportation costs, traffic trip times across the metro region and wait times within busy facilities are driving the County's daily intake of MSW.
- Virginia remains the second largest waste-importing state, with large volumes of waste coming down the northeast corridor to mega-landfills in southeastern Virginia. Less than 10 years of surplus landfill capacity remain in the State.

FY 07 Major Goals

- Conduct all regulatory, policy and compliance activities in accordance with State regulations and County ordinances for waste stream and recycling reporting, landfill closure and post closure, environmental management, permitting, solid waste facility regulation, illegal dumping and vehicle inspections.
- Operate the County's Solid Waste Management Facility in a sound, economical manner while receiving satisfactory State inspections.
- Maintain all infrastructure (erosion and sediment control structures, land features, roads, etc.) and environmental management systems to meet State regulations and County requirements.
- Demonstrate achievement of State mandated recycling goals; provide solid waste recycling services to citizens and businesses through recycling drop-off centers, household hazardous waste events, and special waste collection programs.
- Resolve citizen complaints regarding illegal dumping and improper solid waste disposal; respond to requests for information on solid waste management services and recycling opportunities.

FY 06 Major Achievements:

- The revenue neutrality plan to pay for disposal operations and future landfill cell construction using landfill revenues met its goals for tonnage and revenues.
- A record number of customers, estimated at 95,000 will receive service at the County's Solid Waste Management Facility in FY 06.
- Cell IIIB construction was completed and is accepting waste; Cell IIIC and Sequence II Closure will be designed and bid in FY 06-07 to ensure capacity, to meet State Closure regulations, and to get full benefit of the 2006 construction season.
- The County reported a 25% recycling rate to the State for Calendar Year 2005.

Solid Waste Management

Department Financial Summary

Departmental Financial Summary	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Expenditures					
Personnel	\$1,334,813	\$1,484,726	\$1,612,790	\$1,786,000	\$2,147,000
Operations & Maintenance	1,813,439	1,914,945	1,819,273	1,852,000	2,420,000
Capital Outlay	61,362	48,500	44,334	56,000	58,000
Total Expenditures:	\$3,209,614	\$3,448,171	\$3,476,397	\$3,694,000	\$4,625,000
Revenue					
Local Fees, Charges, Etc	\$979,915	\$2,842,372	\$1,455,916	\$1,500,000	\$2,262,000
Commonwealth	26,670	39,911	18,615	30,000	30,000
Federal	0	6,594	0	0	0
Sale of Machinery	0	120,000	38,000	0	0
Total Revenues:	\$1,006,585	\$3,008,877	\$1,512,531	\$1,530,000	\$2,292,000
Local Tax Funding:	\$2,203,029	\$439,294	\$1,963,866	\$2,164,000	\$2,333,000
FTE Summary:	20.10	20.10	25.10	25.10	28.10

FY 07 Board Action: The FY 07 Adopted budget for Solid Waste Management provides services at the County Administrator's recommended level. The FY 07 budget also reflects the addition of 3.00 FTE for equipment operators in mid-FY06 to maintain pace with increased daily tonnage disposal at the landfill, as well as a reduction of \$263,505 in landfill fees waived to VDOT as directed by the Board of Supervisors during the FY 07 budget process.

Additional information on this department's Capital Improvements Program projects can be found in Volume 2 on pages 547, 548, 549, 550, and 551. Information on scheduled projects for the Capital Asset Preservation Fund can be found in Volume 2 on tables beginning on page 606.

Budget History:

FY 04 Mid-year: The Board added 5.00 FTE to support operations at the County Landfill and Recycling Program.

FY 06 Mid-year: The Board added 3.00 FTE to support disposal operations at the County Landfill.

Solid Waste Management

Expenditures by Program

Programs	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Environmental Assurance and Strategic Planning	\$1,069,088	\$1,169,310	\$1,230,787	\$1,171,000	\$1,319,000
Solid Waste Diversion and Recycling	812,281	966,275	924,055	1,053,000	1,162,000
Disposal Operations	<u>1,328,245</u>	<u>1,312,586</u>	<u>1,321,555</u>	<u>1,470,000</u>	<u>2,144,000</u>
Total	\$3,209,614	\$3,448,171	\$3,476,397	\$3,694,000	\$4,625,000

Revenues by Program

Programs	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Environmental Assurance and Strategic Planning	\$36,583	\$34,335	\$36,350	\$30,000	\$30,000
Solid Waste Diversion and Recycling	52,731	96,018	80,306	30,000	30,000
Disposal Operations	<u>917,271</u>	<u>2,878,524</u>	<u>1,395,875</u>	<u>1,470,000</u>	<u>2,232,000</u>
Total	\$1,006,585	\$3,008,877	\$1,512,531	\$1,530,000	\$2,292,000

Local Tax Funding by Program

Programs	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Environmental Assurance and Strategic Planning	\$1,032,505	\$1,134,975	\$1,194,437	\$1,141,000	\$1,289,000
Solid Waste Diversion and Recycling	759,550	870,257	843,749	1,023,000	1,132,000
Disposal Operations	<u>410,974</u>	<u>(1,565,938)</u>	<u>(74,320)</u>	<u>0</u>	<u>(88,000)</u>
Total	\$2,203,029	\$439,294	\$1,963,866	\$2,164,000	\$2,333,000

Staffing by Program

Programs	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Environmental Assurance and Strategic Planning	9.55	9.35	9.35	9.35	9.35
Solid Waste Diversion and Recycling	3.25	3.25	4.25	4.25	4.25
Disposal Operations	<u>7.30</u>	<u>7.50</u>	<u>11.50</u>	<u>11.50</u>	<u>14.50</u>
Total	20.10	20.10	25.10	25.10	28.10

Solid Waste Management - Environmental Assurance and Strategic Planning

DESCRIPTION

The Environmental Assurance and Strategic Planning program provides planning, management and quality control programs for the County's solid waste management system according to County, State and Federal solid waste regulations. These activities include: management of the Solid Waste Management Facility's environmental programs including leachate, landfill gas, surface water, storm water, and groundwater monitoring; closure/post-closure care of closed landfill sites including environmental monitoring and site maintenance as required by State law for environmental liability; policy and planning support to the Board of Supervisors; enforcement of the County's solid waste ordinances for solid waste facilities, trash collection, illegal dumping and litter control; planning, design and construction of future County solid waste facilities; implementing the County's Solid Waste Management Plan; frontline citizen/customer service; and legislative, compliance and emergency response to solid waste issues.

BUDGET OVERVIEW

FY 07 Issues:

- Provide adequate system capacity for all waste types - including MSW, CDD, yard waste and recycling – by supporting and implementing the solid waste management planning process.
- Maintain quality assurance and control for Solid Waste Management Facility environmental management systems (gas, leachate, groundwater, and surface water), financial assurance, waste stream handling and reporting, site operations and landfill closure/post closure.
- Construct Cell III C and Sequence II Closure in FY 06-07 in accordance with State laws and regulations.
- Enforce Chapters 1080, 1084, 1086, and 1088 of the County Codified Ordinances for solid waste facilities, vehicles, illegal dumping and recycling.
- Respond to increasing requests for information and complaints regarding solid waste collection, recycling services, illegal dumping, litter, recycling and hazardous material disposal.

FY 07 Challenges:

- Solid waste management planning and service delivery must keep pace with the demand for local waste disposal and recycling.
- Staff shortages in the Department of Environmental Quality's Central and Northern Virginia Regional Offices have delayed approval of many compliance submittals for permitting, compliance and planning activities.
- Compliance activities related to local ordinances will stretch available resources as complaints increase regarding illegal dumping, litter and local solid waste collection service providers.

Program Financial Summary	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Expenditures					
Personnel	\$686,189	\$663,153	\$679,513	\$732,000	\$803,000
Operations & Maintenance	382,899	474,358	514,770	409,000	484,000
Capital Outlay	0	31,799	36,504	30,000	32,000
Total Expenditures:	\$1,069,088	\$1,169,310	\$1,230,787	\$1,171,000	\$1,319,000
Revenue					
Local Fees, Charges, Etc	\$36,583	\$34,335	\$33,350	\$30,000	\$30,000
Sale of Land	0	0	3,000	0	0
Total Revenues:	\$36,583	\$34,335	\$36,350	\$30,000	\$30,000
Local Tax Funding:	\$1,032,505	\$1,134,975	\$1,194,437	\$1,141,000	\$1,289,000
FTE Summary:	9.55	9.35	9.35	9.35	9.35

Solid Waste Management - Environmental Assurance and Strategic Planning

Planned Accomplishments/Objectives for FY 07

Goal: Implement Loudoun County Solid Waste Management Planning District Plan; update and review as required.

Objective: Plan for and ensure availability of adequate disposal, transfer, recycling facility and collection capacity in the County's Solid Waste Management System.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Solid Waste Management Plan Review and Update	Plan approved	2 nd yr of Implementation	Biennial Review in 3 rd and 4 th Quarters	Updates in Place
Capital Facilities Design and Construction to ensure adequate County capacity	Cell III A in use	Cell III A in use	Open Cell III B / Design & Construct Cell III C and Sequence II Closure	Construct Cell IIC Sequence II Closure

Goal: Ensure environmental compliance in the County related to solid waste management.

Objective: Ensure that the County facility and other solid waste activities are in compliance with local, State and Federal laws and regulations.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
State Notices of Violation (NOV) received for violating Solid Waste Laws and Regulations	0	0	0	0
State Compliance regarding environmental management systems, financial assurance and waste stream reporting	100 %	100 %	100 %	100 %
Demonstrate Enforcement of Chapters 1080, 1084 and 1086 of County Codified Ordinances through facility inspections, permitting and compliance reporting activities	6 active facilities and 342 collection vehicles permitted and inspected.	6 active facilities and 384 collection vehicles permitted and inspected.	6 active facilities and 390 collection vehicles permitted and inspected	6 active facilities and 450 collection vehicles permitted and inspected

Solid Waste Management - Solid Waste Diversion and Recycling

DESCRIPTION

Solid Waste Recycling and Diversion Programs strive to ensure that Loudoun County meets the State's 25% recycling mandate and provides residents and businesses with opportunities to recycle and dispose of reusable materials in compliance with County Code Chapter 1086 - Solid Waste Reduction and Recycling. Through contracted services, materials are collected from nine recycling dropoff centers, the Loudoun County Solid Waste Management Facility, eight annual HHW collection events, two hazardous waste collection events for qualifying local businesses, and two electronics collection events. The program also administers the Virginia Litter Prevention and Recycling Grant program for the County's seven incorporated towns and other outside organizations.

BUDGET OVERVIEW

FY 07 Issues:

- State solid waste regulations require the County to demonstrate a 25% recycling rate for Municipal Solid Waste (MSW).
- Focus on business and residential recycling requirements in accordance with Chapters 1084 (Solid Waste Collection and Transportation) and Chapter 1086 (Solid Waste Reduction and Recycling).
- In FY 05, the County pursued a recycling depot through a public-private partnership to provide recycling infrastructure in the County. No proposals were presented in response to the request for proposals, but efforts to fund, construct and operate such a facility will continue.
- Demands for household hazardous waste, electronics and other special materials collection events continue to increase; current services are not keeping up with the service levels provided by surrounding jurisdictions.

FY 07 Challenges:

- Providing concise and clear messages to residents about refuse collection and recycling is difficult, due to the wide array of providers performing waste removal in the County.
- Recycling Centers (DOC's), household hazardous waste (HHW) and electronics recycling collection events provide for the proper disposal of hazardous materials. These activities are under increasing pressure to handle larger quantities of recyclable materials, contaminants and bulky items left for pickup.
- While annual HHW collection events serve thousands of households, many residents require special accommodation by the Office of Solid Waste Management staff at the HHW temporary storage facility.
- The only collection center for used motor oil, antifreeze and auto batteries is at the Loudoun County Solid Waste Management Facility, which experiences continuous growth in the volume of material received annually.

Program Financial Summary	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Expenditures					
Personnel	\$196,270	\$234,465	\$246,052	\$278,000	\$298,000
Operations & Maintenance	570,329	731,810	672,630	767,000	856,000
Capital Outlay	45,681	0	5,373	8,000	8,000
Total Expenditures:	\$812,280	\$966,275	\$924,055	\$1,053,000	\$1,162,000
Revenue					
Local Fees, Charges, Etc.	\$26,061	\$56,952	\$61,691	\$0	\$0
Commonwealth	26,670	39,066	18,615	30,000	30,000
Total Revenues:	\$52,731	\$96,018	\$80,306	\$30,000	\$30,000
Local Tax Funding:	\$759,549	\$870,257	\$843,749	\$1,023,000	\$1,132,000
FTE Summary:	3.25	3.25	4.25	4.25	4.25

Solid Waste Management - Solid Waste Diversion and Recycling

Planned Accomplishments/Objectives for FY 07

Goal: Demonstrate the County's commitment to recycling.

Objective: Comply with Commonwealth of Virginia mandated recycling goal of 25%; comply with County Recycling Ordinance (Chapter 1086).

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Reported countywide recycling rate	24%	25%	25%	25%
Enforce Chapter 1086 – Respond to complaints within 5 days and resolve within due dates	100 %	100 %	100 %	100 %

Goal: Provide recycling opportunities for residents and businesses.

Objective: Maintain recycling dropoff centers; provide special materials collection activities and events.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Tons of recycling and special materials collected	10,145 tons	8,135 tons	8,749 tons	9,410 tons
Number of households participating in Household Hazardous Waste events (8 annual events)	2,256	2,929	3,515	4,218

Goal: Provide a clear and consistent message about solid waste management.

Objective: Provide public information and education about County solid waste services and requirements.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Maintain an active program of solid waste and recycling information through media releases, printed / web based media and educational programs	60 media releases	65 media releases	65 media releases	65 media releases
Provide information on solid waste and recycling, technical assistance and educational programs	36 programs/ 1,750 attendees	32 programs/ 1,500 attendees	35 programs/ 1,500 attendees	35 programs/ 1,500 attendees
Respond to citizen requests for information on Solid Waste Management Services and Recycling Opportunities on the first call (95%), or within one business day for complaints and other requests	100 %	100 %	100 %	100 %

Solid Waste Management - Disposal Operations

DESCRIPTION

The Disposal Operations program provides a solid waste disposal option for County residents/businesses/contractors that do not use or have access to private solid waste collectors. This program also provides disposal options to the County government, the Loudoun County Public Schools and other regional non-profit agencies. The Loudoun County Solid Waste Management Facility (LCSWMF) operates according to Virginia Department of Environmental Quality (VDEQ) regulations and Board of Supervisors' policies. The Disposal Operations program accommodates a customer base and waste materials that are unprofitable for private companies to handle. In FY 04, six-day operations were restored to serve collectors who entered agreements for contract rates. Disposal activities include screening, weighing and assessing fees for different types of solid waste, a Homeowners' Convenience Center, the County's largest recycling dropoff center, a waste disposal area, infrastructure management, and maintenance for buildings, site grounds and equipment.

BUDGET OVERVIEW

FY 07 Issues:

- Decreasing landfill capacity throughout the State and the potential unavailability of Fairfax County's facility, which accepts nearly fifty percent of the County's waste, puts increased pressure on the Solid Waste Management Facility's capacity.
- The revenue neutrality program instituted in FY 04 met goals for revenue and capacity conservation in the first two years of operation. Landfill revenues fully cover operational costs and are paying capital costs for new cell and closure construction.
- The increased focus on landfill business operations and financial accountability is important; the facility increased revenues 400% from FY 03 to FY 05.
- While the Facility has been charged to pay its operating and future capital costs, fee waivers account for 1 of every 5 dollars worth of service provided by the Facility. These fee waivers are approved by the Board of Supervisors to governmental agencies and non-profits.
- "Put-or-Pay" contracts for FY 07 have been negotiated with three firms for a special contract rate in return for guaranteed monthly tonnages. The demand for contract tonnage was greater than was available, further indication of the pressure on the State's capacity and increasing operating costs for service providers.

FY 07 Challenges:

- Construction waste disposal has increased dramatically as nearby construction and demolition waste facilities are nearing capacity and significantly increasing tipping fees.
- Factors such as traffic trip time, increased fuel prices and wait times increased the County's customer base in FY 05; collectors are choosing the County facility for time and/or cost efficiencies.
- Meeting the basic needs of the Solid Waste Management Facility's customers will place stress on existing resources for customer service operations, the efficient use of disposal space, and the ability to stage the various waste types coming to the facility for disposal, recycling or reuse.

Program Financial Summary	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Adopted	FY 07 Adopted
Expenditures					
Personnel	\$452,353	\$587,107	\$687,225	\$776,000	\$1,045,000
Operations & Maintenance	860,212	708,778	631,873	676,000	1,081,000
Capital Outlay	15,681	16,701	2,457	18,000	18,000
Total Expenditures:	\$1,328,246	\$1,312,586	\$1,321,555	\$1,470,000	\$2,144,000
Revenue					
Local Fees, Charges, Etc.	\$917,271	\$2,751,085	\$1,360,875	\$1,470,000	\$2,232,000
Commonwealth	0	845	0	0	0
Federal	0	6,594	0	0	0
Sale of Machinery	0	120,000	35,000	0	0
Total Revenues:	\$917,271	\$2,878,524	\$1,395,875	\$1,470,000	\$2,232,000
Local Tax Funding:	\$410,975	(\$1,565,938)	(\$74,320)	\$0	(\$88,000)
FTE Summary:	7.30	7.50	11.50	11.50	14.50

Solid Waste Management - Disposal Operations

Planned Accomplishments/Objectives for FY 07

Goal: Provide Loudoun residents with access to an environmentally sound and economical solid waste disposal facility.

Objective: Serve customers at the landfill six days per week according to sound customer service, fiscal, environmental and operational practices.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Number of customer service transactions for waste screening and proper fee assessments	78,469	85,880	93,500	102,000
Respond to customer complaints within 24 hours of receipt	100%	100 %	100 %	100 %

Goal: Maintain environmental compliance at the County's Solid Waste Management Facility.

Objective: Demonstrate to State/Federal regulators that structures, environmental controls and operations are compliant with local, State and Federal laws and regulations.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Satisfactory State inspections (quarterly DEQ Landfill and one annual air inspection)	5	5	5	5

Goal: Conserve landfill capacity according to the Revenue Neutrality Plan.

Objective: Filling operations run at maximum efficiency.

<i>Performance Measures</i>	Actual FY 04	Actual FY 05	Est. FY 06	Proj. FY 07
Tons of waste buried which meet or exceed the filling efficiency ratio of 2.5 yds/ton	58,868	79,473	95,000	95,000
Total tons processed	78,039	96,283	105,000	120,000